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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Patent Application of

KETTUNEN Atty. Ref.: **10-1304**

Reissue of Patent No.: **5,779,856**

Granted: **July 14, 1998**

For: **COOKING CELLULOSE MATERIAL USING HIGH ALKALI CONCENTRATIONS AND/OR HIGH PH NEAR THE END OF THE COOK**

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March 21, 2000

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

PRELIMINARY REMARKS

As the Reissue Declaration enclosed herewith makes clear, new claims 22 through 46 in this reissue application correspond to, respectively, claims 1 through 25 in U.S. Patent 5,885,414 ("the '414 patent"), a copy of which is enclosed. Both this reissue application for U.S. Patent 5,779,856 and the '414 patent teach kraft cooking of chemical cellulose pulp taking into account the need to have control of the alkali concentration at various stages during the cooking process.

In the '414 patent, there are three treatment zones labeled by the letters A, B, and C in Figure 1. The zone A is said to be an impregnation zone, the zone B is said to be a first cooking zone, and the zone C is a second cooking zone. The temperature, alkali concentration, and time for each of those zones is listed in the following Table 1. In the table the "Refer." heading is a reference to the specification, the number before a colon being the column number, and the numbers after the colon being line numbers.

The '856 patent which is being reissued does not utilize the same terminology for the three different zones that it utilizes. According to the '856 patent, the three zones (see Figure 2) are I, the impregnation zone (column 8, line 53), a heating zone II [mislabeled I in vessel 119 in Figure 2] as indicated at column 8, lines 65 and 66, and a cooking zone III (the bottom part of vessel 119 in Figure 2) as indicated at column 10, line 52 through 54. While the terminology for the '856 patent zones is slightly different than the '414 patent, the conditions in the three zones are virtually the same. Compare Table 2 below (again the "Refer." column, the numbers before a colon are the column number of the '856 patent, while the numbers following the colon are the line numbers) and Table 1.

TABLE 1
Treatments of Lindstrom, et al. in US '414

Zone	Temp	Refer.	EA (g/l)	Refer.	Time (mins)	Refer.
A: Impregn.	100-170C	6:32-35	> 2	3:49-50		
B: Cook 1	130-185	6:48-51	$3 < EA_B < 30$	4:1-3/7:11-13	> 20	7:3-5
C: Cook 2	100-175C	4:55-59/ 7:21-24	$8\text{-}120 > EA_B$	7:23-32	> 30	4:60-62

TABLE 2
Treatments of Kettunen, et al. in US '856

Zone	Temp	Refer.	EA (g/l as NaOH)	Refer.	Time (mins)	Refer.
I: Impregn.	80-110C	8:48-49	> 10	3:2-3	30+	9:24
II: Heating	120-160C	9:30-31	< 10	3:6	5-360	9:33
III: Cooking	140-180C	4:7/10:4	25-60	4:10/10:38	30-360	10:57

A detailed comparison of claims 1 through 25 of the '414 patent to the disclosure of the '856 patent is provided in Attachment A hereto. Again, claims 1 through 25 of the '414 patent correspond specifically to claims 22 through 46 of this reissue application.

It is noted that for the purposes of declaring an interference the Patent & Trademark Office may ask that claim 22 be revised to refer to the second alkali concentration being between about 10-50 g/l greater than the first effective alkali concentration, and to call for that same limitation in claim 5 to be amended to be between 15-50 g/l. There is no patentable distinction between 8-120 g/l and 10-50 g/l, or 20-50 g/l and 15-50 g/l.

As far as the H-factor is concerned, which appears in claims 20 through 25 of the '414 patent, given the virtually identical temperature and related conditions set forth in Tables 1 and 2 above, the H-factors will be substantially the same in the '414 patent and this reissue application. Applicant in this reissue application has not gone to the trouble of calculating the H-factors, however for the Patent and Trademark Office's convenience enclosed is a copy of the two title pages and pages 49 through 54 of the well recognized textbook in the pulp and paper manufacture art entitled "Pulp and Paper Manufacture" by Grace et al, Volume 5, "Alkaline Pulping". The enclosed pages provide a complete discussion of the H-factor including tables and the formulas related thereto. If desired by the Patent & Trademark Office, applicant will provide a calculation of the H-factor for representative conditions set forth in the subject reissue application.

Since the entire disclosure of this reissue application is prelied upon to establish support for the claims of the '414 patent herein has the benefit of the parent application

(now Patent 5,635,026, a copy of which is enclosed), the effective filing date for this reissue application for the purposes of establishing priority of the senior party in an interference is November 13, 1995, more than a year before the filing date of the '414 patent.

Also enclosed herewith is a Consent of the Assignee to reissue and a Request for a title report.

It is believed that all of the appropriate procedures have been complied with, therefore declaration of an interference between this application and the '414 patent, and naming the applicant herein as senior party, is respectfully requested.

Respectfully submitted,

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By: ______________________

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